Listing and Amendments to the Claims

This listing of claims will replace the claims that were published in the PCT Application and identified in the International Preliminary Report on Patentability:

1.   (original) In combination with an ISO/ITU H. 264 compliant video decoder containing a deblocking filter,

    an error concealment stage that receives decoded macroblocks for concealing errors in macroblocks having missing/corrupted data by estimating their pixel values from previously transmitted macroblocks to yield error concealed macroblocks for input to the deblocking filter which by deblocking the error concealed macroblocks avoids the spread of erroneous pixel values.

2.   (original) The decoder according to claim 1 wherein the error concealment stage varies the strength of the deblocking performed by the deblocking filter in accordance with error concealment.

3.   (original) The decoder according to claim 2 wherein the error concealment stage modifies the strength of the deblocking filter by modifying a boundary strength value on transitions between concealed macroblocks and error-free (correctly received) macroblocks.

4.   (original) The decoder according to claim 2 wherein the error concealment stage modifies the strength of the deblocking filter by modifying a boundary strength value on transitions between pairs of concealed macroblocks.

5.   (original) The decoder according to claim 2 wherein the error concealment stage modifies a Quantization Parameter (QP) average for the deblocking filter between concealed macroblocks and correctly received macroblocks.

6.   (original) The decoder according to claim 2 wherein the error concealment stage modifies a Quantization Parameter (QP) average for the deblocking filter between pairs of concealed macroblocks.

7.   (original) The decoder according to claim 3 wherein the error concealment stage modifies a Quantization Parameter (QP) average for the deblocking filter between concealed macroblocks and correctly received macroblocks.

8.   (original) The decoder according to claim 4 wherein the error concealment stage modifies a Quantization Parameter (QP) average for the deblocking filter between pairs of concealed macroblocks.

9.   (original) The decoder according to claim 2 wherein the error concealment stages varies each of a pair of offset values A and B for the deblocking filter.

10.   (original) The decoder according to claim 9 wherein the error concealment stage modifies the strength of the deblocking filter by modifying a boundary strength value on transitions between concealed macroblocks and error-free (correctly received) macroblocks.

11.   (original) The decoder according to claim 9 wherein the error concealment stage modifies the strength of the deblocking filter by modifying a boundary strength value on transitions between pairs of concealed macroblocks.

12.   (original) The decoder according to claim 9 wherein the error concealment stage modifies a Quantization Parameter (QP) average for the deblocking filter between concealed macroblocks and correctly received macroblocks.

13.   (original) The decoder according to claim 9 wherein the error concealment stage modifies a Quantization Parameter (QP) average for the deblocking filter between pairs of concealed macroblocks.

14.   (original) The decoder according to claim 10 wherein the error concealment stage modifies a Quantization Parameter (QP) average for the deblocking filter between concealed macroblocks and correctly received macroblocks.

15.   (original) The decoder according to claim 10 wherein the error concealment stage modifies a Quantization Parameter (QP) average for the deblocking filter between pairs of concealed macroblocks.

16.   (original) A method for smoothing transitions in decoded macroblocks, comprising the steps of:
        detecting if a decoded macroblock has errors attributable to missing/corrupted pixel values , and if so,
        concealing errors by estimating the missing/corrupted pixel values from previously transmitted macroblocks to yield an error-concealed macroblock; and
        filtering the error concealed-macroblock by a deblocking filter to smooth the transitions artificially created by the error concealment algorithm..

17.   (original) The method according to claim 16 further comprising the step of varying the strength of the deblocking performed by the deblocking filter in accordance with error concealment.

18.   (original) The method according to claim 17 wherein the step of modifying the strength of the deblocking filter comprises modifying a boundary strength value on transitions between concealed macroblocks and error-free (correctly received) macroblocks.

19.   (original) The method according to claim 17 wherein the step of modifying the strength of the deblocking filter comprises modifying a boundary strength value on transitions between pairs of concealed macroblocks.

20.   (original) The method according to claim 17 further comprising the step of modifying a Quantization Parameter (QP) average for the deblocking filter between concealed macroblocks and correctly received macroblocks.

21.   (original) The method according to claim 17 further comprising the step of modifying a Quantization Parameter (QP) average for the deblocking filter between pairs of concealed macroblocks.

22.   (original) The method according to claim 18 wherein the error concealment stage modifies a Parameter (QP) average for the deblocking filter between concealed macroblocks and correctly received macroblocks.

23.   (original) The method according to claim 18 further comprising the step of modifying a Quantization Parameter (QP) average for the deblocking filter between pairs of concealed macroblocks.

24.   (original) The method according to claim 17 further comprising the step of varying each of a pair of offset values A and B for the deblocking filter.